EPS Software Reference Manual

COMIZOA

8CHANNEL ANALOG INPUT MODULE

EPS-AI08RnT (v1.00)

April 2016

Table Of Contents

1. EtherCAT Object

▣ 1.1 PDO Mapping

Index	Type	Value	Name	Bit Len	Data Type
0x1A00	RnT Ch.0	0x6000 : 1	Underrange	1	BOOL
		0x6000 : 2	Overrange	1	BOOL
		0x6000 : 3	Limit 1	2	BIT2
		0x6000 : 4	Limit 2	2	BIT2
		0x6000 : 5	Error	1	BOOL
		-	Reserved	7	-
		0x6000 : 15	TxPDO State	1	BOOL
		0x6000 : 16	TxPDO Toggle	1	BOOL
		0x6000 : 17	Value	32	INT32
0x1A01	RnT Ch.1	-	-	-	-
0x1A02	RnT Ch.2	-	-	-	-
0x1A03	RnT Ch.3	-	-	-	-
0x1A04	RnT Ch.4	-	-	-	-
0x1A05	RnT Ch.5	-	-	-	-
0x1A06	RnT Ch.6	-	-	-	-
0x1A07	RnT Ch.7	-	-	-	-

▣ 1.2 Standard SDO Object

Index	SubIndex	Name	Value	Data Type	Flags
0x1000	-	Device type	0x012C1389	UINT32	RO
0x1008	-	Device name	EPS-AI08RnT	STRING	RO
0x1009	-	Hardware version	-	STRING	RO
0x100A	-	Software version	-	STRING	RO
0x1018	0	Identity	4	UINT8	RO
	1	Vendor ID	0xAAAAAAAA	UINT32	RO
	2	Product code	0x50322278	UINT32	RO
	3	Revision	-	UINT32	RO
	4	Serial number	-	UINT32	RO
0x1C00	0	Sync manager type	4	UINT8	RO
	1	SubIndex 001	0x01(1)	UINT32	RO
	2	SubIndex 002	0x02(2)	UINT32	RO
	3	SubIndex 003	0x03(3)	UINT32	RO
	4	SubIndex 004	0x04(4)	UINT32	RO
0x1C12	0	RxPDO assign	0	UINT8	RO
0x1C13	0	TxPDO assign	8	UINT8	RO
	1	SubIndex 001	0x1A00	UINT16	RO
	2	SubIndex 002	0x1A01	UINT16	RO
	3	SubIndex 003	0x1A02	UINT16	RO
	4	SubIndex 004	0x1A03	UINT16	RO
	5	SubIndex 005	0x1A04	UINT16	RO
	6	SubIndex 006	0x1A05	UINT16	RO
	7	SubIndex 007	0x1A06	UINT16	RO
	8	SubIndex 008	0x1A07	UINT16	RO
0x1A0n (n = 0~7)	0	TxPDO Mapping	9	UINT8	RO
	1	SubIndex 001	0x60n0:01, 1	UINT32	RO
	2	SubIndex 002	0x60n0:02, 1	UINT32	RO
	3	SubIndex 003	0x60n0:03, 2	UINT32	RO
	4	SubIndex 004	0x60n0:04, 2	UINT32	RO
	5	SubIndex 005	0x60n0:05, 1	UINT32	RO
	6	SubIndex 006	0x0000:00, 0	UINT32	RO
	7	SubIndex 007	0x60n0:0E, 1	UINT32	RO
	8	SubIndex 008	0x60n0:0F, 1	UINT32	RO
	9	SubIndex 009	0x60n0:11, 32	UINT32	RO

▣ 1.3 Specific SDO Object

▶ 0x60n0 RnT Channel Input (n = 0~7) (RTD Mode)

Index	SubIndex	Name	Value		Data Type	Flags
0x60n0 (n = 0~7)	0	Analog Input	17		UINT8	RO
	1	Underrange	1	AD Value -200℃ 이하	BOOL	RO
	2	Overrange	1	AD Value 800℃ 이상	BOOL	RO
	3	Limit 1	0	사용안함	BIT4	RO
			1	AD Value > Limit 1		
			2	AD Value < Limit 1		
			3	AD Value = Limit 1		
	4	Limit 2	0	사용안함	BIT4	RO
			1	AD Value > Limit 2		
			2	AD Value < Limit 2		
			3	AD Value = Limit 2		
	5	Error	1	Data Read 실패	BOOL	RO
	E	TxPDO State	AD Chip 동작 상태 반환		BOOL	RO
	F	TxPDO Toggle	AD Data Update 시 Toggle		BOOL	RO
	11	Value	입력 받은 온도 값을 표시합니다. Ex) Value 3400 = 340.0℃		UINT32	RO

▶ 0x60n0 RnT Channel Input (n = 0~7) (TC Mode)

Index	SubIndex	Name	Value		Data Type	Flags
0x60n0 (n = 0~7)	0	Analog Input	17		UINT8	RO
	1	Underrange	1	타입 B : Value 0℃ 이하 타입 E : Value -260℃ 이하 타입 J : Value -200℃ 이하 타입 K : Value -260℃ 이하 타입 N : Value -260℃ 이하 타입 R : Value 0℃ 이하 타입 S : Value 0℃ 이하 타입 T : Value -200℃ 이하	BOOL	RO
	2	Overrange	1	타입 B : Value 1820℃ 이상 타입 E : Value 1000℃ 이상 타입 J : Value 1200℃ 이상 타입 K : Value 1380℃ 이상 타입 N : Value 1300℃ 이상 타입 R : Value 1450℃ 이상 타입 S : Value 1450℃ 이상 타입 T : Value 350℃ 이상	BOOL	RO
	3	Limit 1	0	사용안함	BIT4	RO
			1	AD Value > Limit 1		
			2	AD Value < Limit 1		
			3	AD Value = Limit 1		
	4	Limit 2	0	사용안함	BIT4	RO
			1	AD Value > Limit 2		
			2	AD Value < Limit 2		
			3	AD Value = Limit 2		
	5	Error	1	Data Read 실패	BOOL	RO
	E	TxPDO State	AD Chip 동작 상태 반환		BOOL	RO
	F	TxPDO Toggle	AD Data Update 시 Toggle		BOOL	RO
	11	Value	입력 받은 온도 값을 표시합니다. Ex) Value 3400 = 340.0℃		UINT32	RO

▶ 0x80n0 RnT Channel Setting (n = 0~7)

Index	SubIndex	Name	Value		Data Type	Flags
0x80n0 (n = 0~7)	0	RnT Setting	19		UINT8	RO
	1	Enable Limit 1	Limit 1 Enable		BOOL	RW
	2	Enable Limit 2	Limit 2 Enable		BOOL	RW
	3	Enable User Offset	User Offset 사용 여부		BOOL	RW
	4	Select RnT Mode	0	RTD 모드 사용	BOOL	RW
			1	TC 모드 사용		
	7	Wire Connection	0	2 Wire	BOOL	RW
			1	3 Wire		
	8	RTD Element	0	PT1000	BOOL	RW
			1	PT100		
	9	TC Element	0	TYPE – B	UINT8	RW
			1	TYPE – E		
			2	TYPE – J		
			3	TYPE – K		
			4	TYPE – N		
			5	TYPE – R		
			6	TYPE – S		
			7	TYPE – T		
	11	Limit1 Value	Limit1 값		INT32	RW
	12	Limit2 Value	Limit2 값		INT32	RW
	13	User Offset	User Offset 값		INT32	RW

▶ 0xF001 Setting Save Flag

Index	SubIndex	Name	Value		Data Type	Flags
0xF001	-	Setting Save Flag	AD Setting 정보를 Flash에 저장합니다.		UINT16	RO
			0 → 1	저장 실행		

Software Reference Manual Update List

No.	Version	Date	Changes in
1	1.00	2016.04.29	First Edition

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COMIZOA *CO.,LTD*
http://www.comizoa.com
Tel) +82 - 42 - 936 - 6500
Fax) +82 - 42 - 936 - 6507

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